



Water-Data Report 2008

01399100 MIDDLE BROOK AT BURNT MILLS, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°38'58", long 74°40'54" referenced to North American Datum of 1983, Bedminster Township, Somerset County, NJ, Hydrologic Unit 02030105, on right bank just upstream of low dam, 1,200 ft upstream of bridge on River Road East (Cutting Whitney Road), 2,400 ft downstream of Hoopstick Brook, 1.2 mi northeast of Burnt Mills, and 2.2 mi west of Pluckemin.

DRAINAGE AREA.--6.67 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Low-flow partial-record station, water years 1964-67, 1975. Continuous-record gaging station, June 2006 to current year.

GAGE.--Two water-stage recorders at concrete dam with stainless-steel v-notch in the center. Datum of gage is 95 ft above NAVD of 1988 from topographic map. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

REMARKS.--Records fair. Flow past station may be affected by irrigation pumpage upstream of gage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	2045	872	8.90
Dec 29	0445	676	8.44
Feb 1	1945	666	8.42
Feb 13	0915	876	8.88
Mar 8	1515	*1,480	*9.84

Water-Data Report 2008

01399100 MIDDLE BROOK AT BURNT MILLS, NJ—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.41	2.3	4.5	22	127	12	6.2	3.1	2.3	0.41	0.38	0.08
2	0.45	1.9	4.5	14	33	9.2	5.4	2.8	1.5	0.39	0.34	0.04
3	0.51	1.7	33	7.9	12	8.5	3.9	2.5	1.3	0.31	0.37	0.00
4	0.58	1.6	13	6.6	9.4	12	11	2.6	4.2	0.36	0.29	0.00
5	0.42	1.5	8.7	6.2	10	136	6.8	2.3	2.3	2.8	0.20	0.00
6	0.38	2.3	7.2	6.6	14	20	4.9	1.9	1.6	1.8	0.26	69
7	0.40	1.8	6.0	6.7	16	43	4.3	1.7	1.5	0.63	0.27	14
8	0.37	1.7	6.3	6.2	8.7	297	4.1	1.8	1.2	0.53	0.25	1.7
9	0.34	2.9	8.5	5.8	7.4	43	3.8	20	1.1	0.49	0.34	3.5
10	1.6	3.6	38	4.8	7.0	22	3.6	19	0.93	0.63	0.19	2.5
11	1.4	3.4	16	27	4.7	16	3.4	5.7	1.6	0.35	0.27	0.84
12	2.7	3.2	14	13	4.1	12	6.2	6.5	0.86	0.25	0.58	0.85
13	0.91	3.7	61	8.0	390	9.6	4.0	5.2	0.66	0.25	1.1	2.6
14	0.58	3.6	43	16	58	8.3	3.3	3.4	0.65	2.9	0.66	1.1
15	0.52	6.2	18	11	26	8.5	3.0	3.0	6.6	0.60	0.17	0.65
16	0.49	5.4	21	7.7	18	8.3	2.8	19	1.4	0.63	0.21	0.42
17	0.47	3.7	18	6.9	16	6.4	2.6	19	2.2	2.5	0.09	0.39
18	0.47	3.5	9.7	45	83	5.5	2.6	8.2	0.98	0.21	0.06	0.35
19	0.64	6.8	9.2	15	23	90	2.4	6.9	0.85	0.18	0.04	0.27
20	12	7.6	15	9.3	14	109	2.4	11	0.69	0.14	0.00	0.25
21	1.6	5.6	13	6.4	9.8	20	2.2	11	0.61	0.12	0.00	0.31
22	0.96	3.8	14	5.8	9.7	14	2.1	5.8	0.66	0.15	0.00	0.30
23	1.4	3.2	179	5.6	9.0	9.9	2.0	4.5	0.81	0.53	0.00	0.30
24	1.7	2.5	55	4.6	8.0	8.1	1.9	3.6	0.61	10	0.00	0.23
25	1.8	2.3	18	3.8	11	7.0	1.7	3.0	0.51	1.7	0.00	0.43
26	1.2	56	43	3.6	31	6.4	1.9	2.7	0.47	0.65	0.00	2.7
27	137	41	54	3.6	36	5.9	1.8	2.6	0.55	6.2	0.00	1.2
28	11	9.2	18	3.3	14	5.8	14	2.3	0.51	1.5	0.00	2.4
29	4.7	6.8	138	3.2	8.6	4.9	11	2.1	0.64	0.78	0.00	4.0
30	3.4	5.3	22	4.8	---	4.2	4.1	2.4	0.50	0.49	0.00	1.6
31	2.7	---	55	3.3	---	4.4	---	2.2	---	0.43	0.19	---
Total	193.10	204.1	963.6	293.7	1,018.4	966.9	129.4	187.8	40.29	38.91	6.26	112.01
Mean	6.23	6.80	31.1	9.47	35.1	31.2	4.31	6.06	1.34	1.26	0.20	3.73
Max	137	56	179	45	390	297	14	20	6.6	10	1.1	69
Min	0.34	1.5	4.5	3.2	4.1	4.2	1.7	1.7	0.47	0.12	0.00	0.00
Cfsm	0.93	1.02	4.66	1.42	5.26	4.68	0.65	0.91	0.20	0.19	0.03	0.56
In.	1.08	1.14	5.37	1.64	5.68	5.39	0.72	1.05	0.22	0.22	0.03	0.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2006 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	15.1	14.5	20.1	15.0	19.3	27.0	20.9	5.18	1.57	4.29	5.34	5.44
Max	24.0	22.1	31.1	20.5	35.1	31.2	37.5	6.06	1.79	8.66	14.5	11.5
(WY)	(2007)	(2007)	(2008)	(2007)	(2008)	(2008)	(2007)	(2008)	(2007)	(2006)	(2007)	(2006)
Min	6.23	6.80	9.18	9.47	3.01	22.9	4.31	4.31	1.34	1.26	0.20	1.11
(WY)	(2008)	(2008)	(2007)	(2008)	(2007)	(2007)	(2008)	(2007)	(2008)	(2008)	(2008)	(2007)

SUMMARY STATISTICS

	Calendar Year 2007	Water Year 2008	Water Years 2006 - 2008
Annual total	4,674.41	4,154.47	
Annual mean	12.8	11.4	12.5
Highest annual mean			13.7
Lowest annual mean			11.4
Highest daily mean	516	Apr 15	516
Lowest daily mean	0.24	Jul 22	0.00
Annual seven-day minimum	0.43	Oct 3	Many days
Maximum peak flow		1,480	1,670
Maximum peak stage		9.84	9.90
Instantaneous low flow		0.00	0.00
Annual runoff (cfsm)	1.92	1.70	1.88
Annual runoff (inches)	26.07	23.17	25.53
10 percent exceeds	23	20	22
50 percent exceeds	3.2	3.2	3.5
90 percent exceeds	0.59	0.27	0.45

